(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 10 February 2005 (10.02.2005)

PCT

(10) International Publication Number WO 2005/012878 A2

(51) International Patent Classification⁷:

G01N

(21) International Application Number:

PCT/US2004/024789

(22) International Filing Date: 2 August 2004 (02.08.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/492,062 60/492,061

1 August 2003 (01.08.2003) 1 August 2003 (01.08.2003) US

(71) Applicant (for all designated States except US): HTS

- BIOSYSTEMS, INC. [US/US]; 111 Roberts Street, East Hartford, CT 01608 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): TRACY, David, H. [US/US]; 581 Belden Hill Road, Norwalk, CT 06850 (US). BROCKMAN, Jennifer, M. [US/US]; 86 Summer Street, Unit 16, Arlington, MA 02474 (US). FERRARA, Keith, S. [US/US]; 383 Woodstock Avenue, Stratford, CT 06614 (US). SHENKER, Martin [US/US]; 400 East 56th Street, New York, NY 10022 (US). KERSTEN, Robert [US/US]; 121 Day Street, Granby, CT 06035 (US). COHEN, Steven, E. [US/US]; 32 Sally Drive, South Windsor, CT 06074 (US). BODLEY, Gary [US/US]; 155 Carli Boulevard, Colchester, CT 06415 (US). TUXBURY, Patrick [US/US]; 5 Harrison Road, Wallingford, CT 06492 (US). HETHERINGTON, Paul [US/US]; 301 Holly Stream Ct., Brewster, NY 10509 (US). PICOZZA, Enrico [US/US]; 45 Glen Road, Hopkinton, MA 01748 (US).

- (74) Agents: YANKWICH, Leon, R. et al.; Yankwich & Associates, 201 Broadway, Cambridge, MA 02139 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations
- of inventorship (Rule 4.17(iv)) for US only

Published:

without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: OPTICAL RESONANCE ANALYSIS UNIT

(57) Abstract: An optical analysis unit especially suitable for performing grating coupled surface plasmon resonance (SPR) imaging features a pivoting light source capable of scanning through a range of angles of incident light projected onto a stationary target sensor, such as an SPR sensor. The reflected image from the illuminated sensor is detected, e.g., by a CCD camera and the image and angular scan data are processed, for example by a fitting algorithm, to provide real time analysis of reactions taking place on the surface of the sensor.

